Attachment #24

SEQUENCE LISTING

<110> Brian Seed
Tara Pouyani

<120> P-SELECTIN LIGANDS AND RELATED MOLECULES AND METHODS

<130> 00786/284002

<140> 08/765,018
<141> 1996-11-25

<150> 60/000,213
<151> 1995-06-14

<150> 08/661,960
<151> 1996-06-12

<160> 17

<170> FastSEQ for Windows Version 4.0

<210> 1
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<212> PRT
<213> Homo sapiens

<400> 1
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<210> 2
<211> 16
<212> PRT
<213> Homo sapiens

<400> 2
Met Ala Thr Asn Ser Leu Glu Thr Ser Thr Gly Thr Ser Gly Pro Pro
1 5 10 15

<210> 3
<211> 42
<212> PRT
<213> Homo sapiens

<400> 3
Gln Leu Trp Asp Thr Trp Ala Asp Glu Ala Glu Lys Ala Leu Gly Pro
1 5 10 15
Leu Leu Ala Arg Asp Arg Arg Gln Ala Thr Glu Tyr Glu Tyr Leu Asp
20 25 30
Tyr Asp Phe Leu Pro Glu Thr Glu Pro Pro
35 40

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<211> 16
<212> PRT

<213> Homo sapiens

<400> 4
Arg Asp Arg Arg Gln Ala Thr Glu Tyr Glu Tyr Leu Asp Tyr Asp Phe
 1   5   10   15

<210> 5
<211> 20
<212> PRT
<213> Homo sapiens

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Arg Asp Arg Arg Gln Ala Thr Glu Phe Glu Phe Leu Asp Phe Asp Phe
 1   5   10   15
Leu Pro Glu Thr
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<210> 6
<211> 20
<212> PRT
<213> Homo sapiens

<400> 6
Arg Asp Arg Arg Gln Ala Ala Glu Tyr Glu Tyr Leu Asp Tyr Asp Phe
 1   5   10   15
Leu Pro Glu Ala
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<210> 7
<211> 20
<212> PRT
<213> Homo sapiens

<400> 7
Arg Asp Arg Arg Gln Ala Ala Glu Phe Glu Phe Leu Asp Phe Asp Phe
 1   5   10   15
Leu Pro Glu Ala
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<210> 8
<211> 2287
<212> DNA
<213> Homo sapiens

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tcggtgaagg tctcctgcaa ggcttctgga ggcaccttca gcagctatgc tatcagctgg 180
gtgcgacagg cccctggaca agggcttgag tggatgggag ggatcatccc tatctttggt 240
acagcaaact acgcacagaa gttccagggc agagtcacga ttaccgcgga cgaatccacg 300
agcacagcct acatggagct gagcagcctg agatctgagg acacggccgt gtattactgt 360
gcgagagata atggagcgta ttgtagtggt ggtagctgct actcgggctg gttcgacccc 420
tggggccagg gaaccctggt caccgtctct tcaggtgagt actgaattct agctttctgg 480
ggcaggccag gcctgacctt ggctttgggg cagggagggg gctaaggtga ggcaggtggc 540
gccagcaggt gcacacccaa tgcccatgag cccagacact ggacgctgaa cctcgcggac 600
agttaagaac ccaggggcct ctgcgcctgg gcccagctct gtcccacacc gcggtcacat 660
ggcaccacct ctcttgcagc ctccaccaag ggcccatcgg tcttcccccc ggcaccctcc 720

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tccaagagca cctctggggg cacagcggcc ctgggctgcc tggtcaagga ctacttcccc     780
gaaccggtga cggtgtcgtg gaactcaggc gccctgacca gcggcgtgca caccttcccg     840
gctgtcctac agtcctcagg actctactcc ctcagcagcg tggtgaccgt gccctccagc     900
agcttgggca cccagaccta catctgcaac gtgaatcaca agcccagcaa caccaaggtg     960
gacaagaaag ttggtgagag gccagcacag ggagggaggg tgtctgctgg aagcaggctc    1020
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cccgtctgcc tcttcacccg gagcctctgc ccgccccact catgctcagg gagagggtct    1140
tctggctttt tcccaggctc tgggcaggca caggctaggt gcccctaacc caggccctgc    1200
acacaaaggg gcaggtgctg ggctcagacc tgccaagagc catatccggg aggaccctgc    1260
ccctgaccta agcccacccc aaaggccaaa ctctccactc cctcagctcg gacaccttct    1320
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aactcacaca tgcccaccgt gcccaggtaa gccagcccag gcctcgccct ccagctcaag    1440
gcgggacagg tgccctagag tagcctgcat ccagggacag gccccagccg ggtgctgaca    1500
cgtccacctc catctcttcc tcagcacctg aactcctggg gggaccgtca gtcttcctct    1560
tccccccaaa acccaaggac accctcatga tctcccggac ccctgaggtc acatgcgtgg    1620
tggtggacgt gagccacgaa gaccctgagg tcaagttcaa ctggtacgtg gacggcgtgg    1680
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tcagcgtcct caccgtcctg caccaggact ggctgaatgg caaggagtac aagtgcaagg    1800
tctccaacaa agccctccca gcccccatcg agaaaaccat ctccaaagcc aaaggtggga    1860
cccgtggggt gcgagggcca catggacaga ggccggctcg gcccaccctc tgccctgaga    1920
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tgccccatc ccgggatgag ctgaccaaga accaggtcag cctgacctgc ctggtcaaag    2040
gcttctatcc cagcgacatc gccgtggagt gggagagcaa tgggcagccg gagaacaact    2100
acaagaccac gcctcccgtg ctggactccg acggctcctt cttcctctac agcaagctca    2160
ccgtggacaa gagcaggtgg cagcagggga acgtcttctc atgctccgtg atgcatgagg    2220
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ggccggc                                                              2287
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<210> 9
<211> 442
<212> PRT
<213> Homo sapiens

<400> 9

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Lys Leu Thr Thr Met Asp Trp Thr Trp Arg Phe Leu Phe Phe Val Val
 1               5                  10                  15
Ala Ala Ala Thr Gly Val Gln Ser Gln Val Gln Leu Val Gln Ser Gly
            20                  25                  30
Ala Glu Val Lys Lys Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala
        35                  40                  45
Ser Gly Gly Thr Phe Ser Ser Tyr Ala Ile Ser Trp Val Arg Gln Ala
    50                  55                  60
Pro Gly Gln Gly Leu Glu Trp Met Gly Gly Ile Ile Pro Ile Phe Gly
65                  70                  75                  80
Thr Ala Asn Tyr Ala Gln Lys Phe Gln Gly Arg Val Thr Ile Thr Ala
                85                  90                  95
Asp Glu Ser Thr Ala Arg Asp Asn Gly Ala Tyr Cys Ser Gly Gly Ser
            100                 105                 110
Cys Tyr Ser Gly Trp Phe Asp Pro Trp Gly Gln Gly Thr Leu Val Thr
        115                 120                 125
Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro
    130                 135                 140
Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val
145                 150                 155                 160
Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala
                165                 170                 175
Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly
```

```
            180                 185                 190
Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Asp Lys
        195                 200                 205
Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
    210                 215                 220
Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
225                 230                 235                 240
Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
                245                 250                 255
Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
            260                 265                 270
Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
        275                 280                 285
Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
    290                 295                 300
His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
305                 310                 315                 320
Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
                325                 330                 335
Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu
            340                 345                 350
Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
        355                 360                 365
Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
    370                 375                 380
Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
385                 390                 395                 400
Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
                405                 410                 415
Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
            420                 425                 430
Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
        435                 440
```

<210> 10
<211> 1894
<212> DNA
<213> Homo sapiens

<400> 10

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atggcgctgt cctgggttct tacagtcctg agcctcctac ctctgctgga agcccagatc      60
ccattgtgtg ccaacctagt accggtgccc atcaccaacg ccaccctgga ccagatcact     120
ggcaagtggt tttatatcgc atcggccttt cgaaacgagg agtacaataa gtcggttcag     180
gagatccaag caaccttctt ttacttcacc cccaacaaga cagaggacac gatctttctc     240
agagagtacc agacccgaca ggaccagtgc atctataaca ccacctacct gaatgtccag     300
cgggaaaatg ggaccatctc cagatacgtg ggaggccaag agcatttcgc tcacttgctg     360
atcctcaggg acaccaagac ctacatgctt gcttttgacg tgaacgatga gaagaactgg     420
gggctgtctg tctatgctga caagccagag acgaccaagg agcaactggg agagttctac     480
gaagctctcg actgcttgcg cattcccaag tcagatgtcg tgtacaccga ttggaaaaag     540
gataagtgtg agccactgga gaagcagcac gagaaggaga ggaaacagga ggaggggaa      600
tcggatcccg agggtgagta ctaagcttca gcgctcctgc ctggacgcat cccggctatg     660
cagccccagt ccagggcagc aaggcaggcc ccgtctgcct cttcacccgg agcctctgcc     720
cgccccactc atgctcaggg agagggtctt ctggcttttt cccaggctct gggcaggcac     780
aggctaggtg cccctaaccc aggccctgca cacaaagggg caggtgctgg gctcagacct     840
gccaagagcc atatccggga ggaccctgcc cctgacctaa gcccacccca aaggccaaac     900
tctccactcc ctcagctcgg acaccttctc tcctcccaga ttccagtaac tcccaatctt     960
ctctctgcag agcccaaatc ttgtgacaaa actcacacat gcccaccgtg cccaggtaag    1020
```

```
ccagcccagg cctcgccctc cagctcaagg cgggacaggt gccctagagt agcctgcatc    1080
cagggacagg ccccagccgg gtgctgacac gtccacctcc atctcttcct cagcacctga    1140
actcctgggg ggaccgtcag tcttcctctt ccccccaaaa cccaaggaca ccctcatgat    1200
ctcccggacc cctgaggtca catgcgtggt ggtggacgtg agccacgaag accctgaggt    1260
caagttcaac tggtacgtgg acggcgtgga ggtgcataat gccaagacaa agccgcggga    1320
ggagcagtac aacagcacgt accgggtggt cagcgtcctc accgtcctgc accaggactg    1380
gctgaatggc aaggagtaca agtgcaaggt ctccaacaaa gccctcccag ccccatcga     1440
gaaaaccatc tccaaagcca aaggtgggac ccgtggggtg cgagggccac atggacagag    1500
gccggctcgg cccaccctct gccctgagag tgaccgctgt accaacctct gtcctacagg    1560
gcagccccga gaaccacagg tgtacaccct gcccccatcc cgggatgagc tgaccaagaa    1620
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cggctccttc ttcctctaca gcaagctcac cgtggacaag agcaggtggc agcaggggaa    1800
cgtcttctca tgctccgtga tgcatgaggc tctgcacaac cactacacgc agaagagcct    1860
ctccctgtct ccgggtaaat gagtgcgacg gccg                                1894
```

<210> 11
<211> 437
<212> PRT
<213> Homo sapiens

<400> 11

```
Met Ala Leu Ser Trp Val Leu Thr Val Leu Ser Leu Leu Pro Leu Leu
 1               5                  10                  15
Glu Ala Gln Ile Pro Leu Cys Ala Asn Leu Val Pro Val Pro Ile Thr
            20                  25                  30
Asn Ala Thr Leu Asp Gln Ile Thr Gly Lys Trp Phe Tyr Ile Ala Ser
        35                  40                  45
Ala Phe Arg Asn Glu Glu Tyr Asn Lys Ser Val Gln Glu Ile Gln Ala
    50                  55                  60
Thr Phe Phe Tyr Phe Thr Pro Asn Lys Thr Glu Asp Thr Ile Phe Leu
65                  70                  75                  80
Arg Glu Tyr Gln Thr Arg Gln Asp Gln Cys Ile Tyr Asn Thr Thr Tyr
                85                  90                  95
Leu Asn Val Gln Arg Glu Asn Gly Thr Ile Ser Arg Tyr Val Gly Gly
            100                 105                 110
Gln Glu His Phe Ala His Leu Leu Ile Leu Arg Asp Thr Lys Thr Tyr
        115                 120                 125
Met Leu Ala Phe Asp Val Asn Asp Glu Lys Asn Trp Gly Leu Ser Val
    130                 135                 140
Tyr Ala Asp Lys Pro Glu Thr Thr Lys Glu Gln Leu Gly Glu Phe Tyr
145                 150                 155                 160
Glu Ala Leu Asp Cys Leu Arg Ile Pro Lys Ser Asp Val Val Tyr Thr
                165                 170                 175
Asp Trp Lys Lys Asp Lys Cys Glu Pro Leu Glu Lys Gln His Glu Lys
            180                 185                 190
Glu Arg Lys Gln Glu Glu Gly Glu Ser Asp Pro Glu Gly Glu Pro Lys
        195                 200                 205
Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
    210                 215                 220
Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
225                 230                 235                 240
Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
                245                 250                 255
Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
            260                 265                 270
Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
```

```
        275                 280                 285
Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
    290                 295                 300
Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
305                 310                 315                 320
Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
                325                 330                 335
Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln
            340                 345                 350
Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
        355                 360                 365
Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
    370                 375                 380
Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
385                 390                 395                 400
Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
                405                 410                 415
Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
            420                 425                 430
Leu Ser Pro Gly Lys
        435
```

<210> 12
<211> 442
<212> PRT
<213> Homo sapiens

<400> 12

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Lys Leu Thr Thr Met Asp Trp Thr Trp Arg Phe Leu Phe Phe Val Val
 1                5                  10                  15
Ala Ala Ala Thr Gly Val Gln Ser Gln Val Gln Leu Val Gln Ser Gly
            20                  25                  30
Ala Glu Val Lys Lys Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala
        35                  40                  45
Ser Gly Gly Thr Phe Ser Ser Tyr Ala Ile Ser Trp Val Arg Gln Ala
    50                  55                  60
Pro Gly Gln Gly Leu Glu Trp Met Gly Gly Ile Ile Pro Ile Phe Gly
65                  70                  75                  80
Thr Ala Asn Tyr Ala Gln Lys Phe Gln Gly Arg Val Thr Ile Thr Ala
                85                  90                  95
Asp Glu Ser Thr Ala Arg Asp Asn Gly Ala Tyr Cys Ser Gly Gly Ser
            100                 105                 110
Cys Tyr Ser Gly Trp Phe Asp Pro Trp Gly Gln Gly Thr Leu Val Thr
        115                 120                 125
Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro
    130                 135                 140
Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val
145                 150                 155                 160
Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala
                165                 170                 175
Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly
            180                 185                 190
Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Asp Lys
        195                 200                 205
Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
    210                 215                 220
Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
```

225 230 235 240
Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
245 250 255
Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Asn Phe Ser Trp
260 265 270
Tyr Val Asp Gly Val Glu Val His Asn Asn Lys Thr Lys Pro Arg Glu
275 280 285
Glu Asn Tyr Ser Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
290 295 300
His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Asn Val Ser Asn
305 310 315 320
Lys Ala Leu Pro Ala Pro Ile Glu Lys Asn Ile Ser Lys Ala Lys Gly
325 330 335
Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu
340 345 350
Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
355 360 365
Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
370 375 380
Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
385 390 395 400
Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
405 410 415
Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
420 425 430
Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
435 440

<210> 13
<211> 42
<212> PRT
<213> Homo sapiens

<400> 13
Pro Glu Met Leu Arg Asn Ser Thr Asp Thr Thr Pro Leu Thr Gly Pro
1 5 10 15
Gly Thr Pro Glu Ser Thr Thr Val Glu Pro Ala Ala Arg Arg Ser Thr
20 25 30
Gly Leu Asp Ala Gly Gly Ala Val Thr Glu
35 40

<210> 14
<211> 16
<212> PRT
<213> Homo sapiens

<400> 14
Leu Thr Thr Glu Leu Ala Asn Met Gly Asn Leu Ser Thr Asp Ser Ala
1 5 10 15

<210> 15
<211> 13
<212> PRT
<213> Homo sapiens

<400> 15
Thr Gly Asp Tyr Tyr Glu Asp Ser Tyr Glu Asp Ile Ser

1 5 10

<210> 16
<211> 9
<212> PRT
<213> Homo sapiens

<400> 16
Glu Asp Tyr Glu Tyr Asp Glu Leu Pro
1 5

<210> 17
<211> 91
<212> PRT
<213> Homo sapiens

<400> 17
Ile Thr Thr Asn Ser Pro Glu Thr Ser Ser Arg Thr Ser Gly Ala Pro
1 5 10 15
Val Thr Thr Ala Ala Ser Ser Leu Glu Thr Ser Arg Gly Thr Ser Gly
20 25 30
Pro Pro Leu Thr Met Ala Thr Val Ser Leu Glu Thr Ser Lys Gly Thr
35 40 45
Ser Gly Pro Pro Val Thr Met Ala Thr Asp Ser Leu Glu Thr Ser Thr
50 55 60
Gly Thr Thr Gly Pro Pro Val Thr Met Thr Thr Gly Ser Leu Glu Pro
65 70 75 80
Ser Ser Gly Ala Ser Gly Pro Gln Val Ser Ser
85 90